

Notice of Allowability

Application No.

10/023,240

Examiner

Mehmet B. Geckil

Applicant(s)

BOUCHER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/17/01.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☒ The drawings filed on 17 December 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

MEHMET B. GECKIL
PRIMARY EXAMINER

Mehmet B. Geckil

EXAMINER'S AMENDMENT

CROSS-REFERENCE TO RELATED APPLICATIONS

This application claims the benefit under 35 U.S.C. .sctn.120 of U.S. patent application Ser. No. 09/464,283 (~~Attorney Docket No. ALA-006~~), entitled "INTELLIGENT NETWORK INTERFACE DEVICE AND SYSTEM FOR ACCELERATED COMMUNICATION", filed Dec. 15, 1999, by Laurence B. Boucher et al., now U.S. Patent No. 6,427,173 which in turn claims the benefit under 35 U.S.C. .sctn.120 of U.S. patent application Ser. No. 09/439,603 (~~Attorney Docket No. ALA-009~~), entitled "INTELLIGENT NETWORK INTERFACE SYSTEM AND METHOD FOR ACCELERATED PROTOCOL PROCESSING", filed Nov. 12, 1999, by Laurence B. Boucher et al., now U.S. Patent No. 6,247,060 which in turn claims the benefit under 35 U.S.C. .sctn.119(e)(1) of the Provisional Application filed under 35 U.S.C. .sctn.111(b) entitled "INTELLIGENT NETWORK INTERFACE CARD AND SYSTEM FOR PROTOCOL PROCESSING," Ser. No. 60/061,809, filed on Oct. 14, 1997.

This application also claims the benefit under 35 U.S.C. .sctn.120 of U.S. patent application Ser. No. 09/384,792, entitled "INTELLIGENT NETWORK INTERFACE DEVICE AND SYSTEM FOR ACCELERATED COMMUNICATION," filed Aug. 27, 1999, now U.S. Patent No. 6,434,620 which in turn claims the benefit under 35 U.S.C. .sctn.119(e)(1) of the Provisional Application filed under 35 U.S.C. .sctn.111(b) entitled "INTELLIGENT NETWORK INTERFACE DEVICE AND SYSTEM FOR ACCELERATED COMMUNICATION," Ser. No. 60/098,296, filed Aug. 27, 1998. This application is also a continuation of application Ser. No. 09/067,544, filed Apr. 27, 1998, now U.S. Patent No. 6,226,680. The subject matter of all four of the above-identified patent applications (including the subject matter in the Microfiche Appendix of U.S. application Ser. No.

09/464,283, now U.S. Patent No. 6,427,173), and of the two above-identified provisional applications, is incorporated by reference herein.

REASONS FOR ALLOWANCE

The following is an Examiner's Statement of Reasons for Allowance:

Claims 1-17 are allowed because the prior art did not teach or reasonably suggest a method of generating a fast-path response to a packet received onto a network interface device, the packet being received over a TCP/IP network connection, the TCP/IP network connection being identified at least in part by a TCP source port, a TCP destination port, an IP source address, and an IP destination address, the method comprising: on the network interface device examining the packet and determining from the packet the TCP source port, the TCP destination port, the IP source address, and the IP destination address; accessing a template header stored on the network interface device, the template header having TCP fields and IP fields; employing a finite state machine that implements both TCP protocol processing and IP protocol processing to fill in the TCP fields and IP fields of the template header, wherein the finite state machine does not realize a TCP protocol processing layer and a discrete IP protocol processing layer where the TCP and IP layers are executed one after another in sequence, but rather the finite state machine covers both TCP and IP protocol processing; and transmitting the fast-path response from the network interface device, the filled in template header forming at least a part of the fast-path response.

Employing a finite state machine to that implements both TCP protocol processing and IP protocol processing to fill in the TCP fields and IP fields of the template header, wherein the finite state machine does not realize a TCP protocol processing layer and a discrete IP protocol processing layer where the TCP and IP layers are executed one after another in sequence, but rather the finite state machine covers both TCP and IP protocol processing is new a novel and allowable over the art of record. Other claimed elements in claims 12 and 13 in conjunction with fast-path and stack elements are also allowable over the art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mehmet Geckil whose telephone number is (571) 272-3894. The examiner can normally be reached on Monday through Friday from 6:30 A.M. to 3:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor Jack Harvey, can be reached on (571) 272-3896.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

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may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read "Mehmet Geckil". The signature is written in a cursive, flowing style.

**MEHMET B. GECKIL
PRIMARY EXAMINER**